

American Junior Red Cross

NEWS

JANUARY • 1958



NEWS

American Junior Red Cross

VOL. 40 JANUARY 1959 NO. 4

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The American Junior Red Cross NEWS is published monthly, October through May, and is copyrighted 1959 by the American National Red Cross, Washington, D. C.

Membership in the American Junior Red Cross is maintained through the annual enrollment of schools. Each elementary classroom enrolled is entitled to receive one copy of each of the eight issues of the American Junior Red Cross NEWS, beginning with the February issue. For other information concerning the American Junior Red Cross, see your local Junior Red Cross chairman. National enrollment fee \$1.00 annually per classroom. Extra copies of the NEWS are available at 15¢ a single copy.

The NEWS was entered as second-class matter January 18, 1921, at the post office, Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized January 3, 1921.

MANY WONDERFUL WORLDS —WORLD OF SCIENCE

► January NEWS Cover

Arthur Renshaw designed the unusual cover for this month's NEWS around the January theme, "World of Science." We welcome Mr. Renshaw as a new NEWS artist.

► Council Theme

The Elementary Council of the District of Columbia chapter, whose story was told in the October 1958 NEWS, has honored the NEWS again. They have chosen as the 1958-59 theme for their council meetings, "Many Wonderful Worlds," and as their theme song, "Join the Junior Red Cross," from the October 1958 issue. Their fall meeting was about bicycle safety, based on the October NEWS feature, "Big Wheel."

► Letters from NEWS Readers

I live on a little island, Atka, in the Aleutian chain off the coast of Alaska. We have about 23 houses and about 145 people. We do not live in igloos. We have running water and oil stoves.

Our school is a government school under the Bureau of Indian Affairs. I'm glad I am an American.

—ALFRED PROKOPEUFF, JR.,
Atka, Alaska

We want to ask permission to make a reprint of the song "Smile!" from the February 1958 NEWS. We wish to present it to Mrs. Jacqueline Hill, our consultant teacher, who will not be with us next year. We love her smile and think this is the song for her.

—JOHN GARCIA, Atrisco School
Albuquerque, New Mexico

Our school children appreciate the NEWS. The stories are delightful, and so are the songs.

Do you recall the song, "A Smile is Friendly Magic" (March 1956)? One night during the last blizzard, 5-year-old Alan, one of our kindergarten boys, was driving home with his father and mother. As they parked their car, they noticed a woman trying to get her car out of a rut. Alan's daddy offered to help and soon succeeded in freeing her car. Alan said, "See, Daddy! 'Helping hands will bring you friends wherever you may go'."

How naturally little children are applying lessons taught through Junior Red Cross songs.

—ALMA M. HARING, Teacher
Horace Mann School
Richmond Hill, New York

We like to hear from our NEWS readers, especially about how classes use the magazines.

Lois S. JOHNSON, editor.



Philip C. Ditts Photo

ST. PAUL, MINNESOTA. Bruce Kuettner and Jack Hawley, sixth grade JRCers at the Como Park School, help prepare for a bloodmobile visit to a nearby community. Packing blood bottles into the special boxes made for their safe transport is one of the many ways JRCers help at blood centers.

KI AND THE BLUE-EYED DEVIL

by HELEN REEDER CROSS



A storm and tides washed up a new adventure for Ki, a boy of old Japan.

A HUNDRED YEARS AGO in Japan Ki sat day-dreaming at his lessons. He should have been learning the Lotus Poem. Sons of Lords or "Shoguns," like Ki's father, must know the poem well. But Ki was a dreamer. His eyes strayed to the ocean beyond the garden. Though last night there had been a storm, now the water was smooth as a looking glass.

What lay on the ocean's distant shore, Ki wondered? Did boys in other lands study on so bright a day as this? Did they wish to go spear-fishing instead? Ki often asked Honorable Teacher these questions, for he longed to know about the lands across the sea.

But Honorable Teacher always answered, "The world is a wicked place, and filled with

foreign devils. Long ago our Emperor ordered us never to leave our beautiful islands. Japan is world enough for a Japanese."

Still, Ki wondered. He knew that ships from other lands were sometimes wrecked off shore. Sailors from such ships were imprisoned, for foreign boats and men were unwelcome in the "Land of the Lotus." But what secrets they could tell a curious boy!

Ki shut his eyes to keep his thoughts from wandering. He tried to memorize quickly. Unless he recited the poem well, there would be no sword practice today.

Suddenly Ki heard his sister's quick sandal taps. He looked up. Mao's black eyes were snapping. Her flowered kimono was tucked into her obi or sash, for she had been gathering shells on the beach. Mao rushed almost



"Oh, no, Honorable Father!" Ki begged. "Please do not put him in prison. He can be my prisoner."

to the edge of Honorable Teacher's shadow. There she bowed politely.

"Sir," she exclaimed, "there is a strange man on the beach! A little man, like Ki. But he has faded hair and queer clothes. I cannot tell whether he is dead or alive."

Without stopping for permission, Ki darted away with Mao following close behind.

At the edge of the garden there was a little cliff. Ki slid down its steep bank to the beach below. There, stretched beside a pile of driftwood, lay a boy. He wore blue trousers and a ragged shirt. Ki listened to the boy's heart. It was beating faintly.

Then he looked out to sea. There was no boat in sight. Who was this strange boy? From what far land across the ocean had he come? Mao and the gardener appeared.

Behind them came Honorable Teacher and Ki's father, the Shogun. They, too, examined the boy with the pale skin and fair hair. None had ever seen so odd a creature.

"We must call the guard," Ki's father decided. "Foreign devils, even young ones, are not welcome in Japan. The Emperor would be displeased to hear of him."

Ki gasped. "Oh, no, Honorable Father!" he begged. "Please do not put him in prison. Let me have this strange boy. He can be *my* prisoner. I will guard him well."

Ki's father laughed. "That would be a joke!" he said. "A little boy to guard a foreign devil! But why not? You might learn much. Only see that you do not let him get away, if the boy lives."

Ki bowed low to his father. "Thank you, sir," he said. Then the gardener's son helped him carry the boy into the house.

For hours Ki sat beside his prisoner. Servants bathed the unconscious lad and cut his hair short, like Ki's. They dressed him in a red kimono. The doctor examined him and said that he would recover.

At last the foreign devil opened his eyes. They were round instead of almond-shaped like Ki's own. More than that, they were blue! What an odd color for eyes. Japanese eyes are always black.

The boy sat up. He looked about him—at the pallet on which he had been lying, at the bamboo walls. He felt of his kimono. When he saw Ki he jumped and cried out in a strange tongue.

Remembering that this blue-eyed boy was his prisoner, Ki tried to look stern. He waved his sword threateningly, as he had seen his father do. Instead of looking frightened, the foreign boy laughed. Laughed!—at him, Ki, son of the Shogun Minamoto. Still, there was something catching about that laugh. The boy looked completely unafraid. He looked funny, too, with yellow hair in a bristly cut and the red kimono. Then Ki laughed, too.

He slipped his sword back into his belt and clapped his hands for a servant. The foreign devil might like a bit of warm gruel.

The days slipped quickly past. Soon the two boys were no longer strangers. The blue-eyed boy had grown strong again. His name was "Jim." Now he tucked his kimona into his girdle before racing with Ki, to keep from tripping over it. He enjoyed his meals of rice and fish. He smacked his lips like any Japanese boy over sesame seed cakes and tea. Ki was especially pleased that Jim had become an excellent fencing partner. He had even tried the Japanese wrestling called "Jujitsu."

By now the two lads could understand each other's speech quite well. They had discovered that boys the world over like the same things—kites and fishing, bows and arrows, pranks played on little sisters. They also dislike the same things, such as long hours at lessons with Honorable Teacher on a beautiful summer day.

At first that gentleman looked darkly at the "Blue-Eyed Devil." But before long he told his master, "Honorable Shogun, this Jim is good for your son. He already holds a writing brush and traces a few letters on rice paper. He is most respectful and mannerly."

Little Mao was Jim's shadow, for after all, she had found him. Jim amused her for hours. Sometimes he sang to the music of her samisen. Sometimes he taught her pet monkey new tricks.

But if Jim had much to learn about Japan, he had more to tell the eager Ki about his own country across the sea. Jim's homeland was called "America." He had been a cabin boy on a ship bound for China. A great wave had washed him overboard on the night of the storm. He remembered struggling to keep afloat on a piece of driftwood. Then he remembered nothing more until he opened his eyes and saw Ki that first time.

"It was a steamship," he told the Japanese boy. "My uncle was the captain."

"What do you mean—'steamship'?" Ki asked. Jim told him of a kind of boat that could cross the ocean with no sails. Instead, it had an engine that puffed steam, like that from a teakettle. Jim told Honorable Teacher and Ki's father about this steamship. The men shook their heads. How could a ship move without wind to blow it?

"We have steam engines called 'trains' in America, too," Jim told them. "They pull cars filled with people from one end of our land to the other."

"The boy is clearly out of his head," Shogun Minamota said. "Still, he seems harmless." He cautioned Ki, "Remember that the blue-eyed foreigner is not to be trusted, my son. Guard your prisoner well."

"Yes, Father," Ki said meekly. How could he tell the Shogun that Jim had stopped being his prisoner and was now his friend?

"I believe your stories," he told Jim. "Tell me more about America."

So Jim told him of schools where girls and boys learned to read from books instead of scrolls. He told Ki of ticking clocks instead of sundials that showed the time. He described metal toys that wound up with a key and ran across the floor like bugs.

Ki sighed. "All foreigners are not devils, Jim. Look at you. Surely it would not be dangerous to visit your land of America."

One summer day the boys were spear-fishing in the shallows of low tide for crabs, perhaps a baby octopus. Suddenly Jim yelled.

"Ships! Look! A whole fleet, and the American flag!"

Ki looked. There, gliding into the harbor, were many boats. Not fishing vessels. These ships were large and had no sails. Instead, queer pipes puffed smoke into the air in great clouds.

"Are they 'steamships'?" Ki asked. It was a dream come true.

But if it was a dream for Ki, it was a nightmare for his father, the Shogun. The fleet was

indeed from America. It was commanded by Commodore Perry, who brought letters from President Fillmore. The letters asked that Japan welcome ships of the world into its ports. What would the Emperor think of such a request after Japan's 200 years spent proudly alone?

Commodore Perry himself presented the letters to the Shogun. The Japanese admired his fine manners. But what would the Emperor, His Majesty the Heavenly Ruler, descended from the Sun Goddess, say? Would he open his country to visitors? The Honorable Minamota entertained the Commodore in his Tea Pavilion beside his lotus pond. But he would make no promises about opening Japan to the foreign devils until he had first talked to the Emperor.

"We have been pleased with your young blue-eyed countryman named Jim," the Shogun told Commodore Perry. "He began as my son's prisoner and ended as his friend."

His father had guessed their secret! Ki and Jim exchanged grins. Still, Ki's heart was sad, for Jim was going home to America. He would miss his new friend. Still, who could tell? If the Emperor agreed to open Japan's harbors to ships of the world, Jim might return some day.

Everyone knelt to watch the little train.

"I have brought a present to your son who has guarded Jim so well," Commodore Perry said. "A present that will tell him much about America."

He set a box in front of Ki, who opened it. Inside were many smaller boxes. Each held a bright toy. Each was, Ki saw, a strange kind of carriage for riding in. Not jinrikishas or ox carts. Not like anything he had ever seen. Suddenly he guessed what the gift was.

"A toy train!" Ki shouted, forgetting his manners. "It is a train with a steam engine. Jim told me about them."

No one in all Japan had ever seen a toy like this. Many small cars hitched together behind a tiny steam engine. Real ones in America, Commodore Perry told them, carried many people and the burdens of many coolies. The whole toy train wound up with a key to run round the floor on a track.

Soon Commodore Perry and the Shogun, almond-eyed and blue-eyed boys, sailors in white suits and servants in kimonas—all were kneeling on the floor. Even Honorable Teacher forgot his dignity. All breathlessly watched the little train go round its track.

"I must tell the Emperor about this foreign magic," the Shogun decided when the party ended. "We must have trains in Japan."



Illustrated by Wm. Hutchinson

It was a cold winter. Troy's mother and father said it was the coldest they had ever known on Dawhoo Island, and they had lived there since before Troy was born. Every morning there was a frost—white frost that glittered like snow, or black frost that turned the winter vegetables black. Cold air seeped into the house around the doors and windows, and it took all the wood that Father and Troy could cut to keep the house warm.

Troy didn't mind the cold. He was tall for 10 years old, and he was strong, too. He could split kindling with an axe, he could stack wood neatly, and all that year he had helped his father with the farm work after school. Now, however, the fields were frozen and Father drove across the bridge to a job on the mainland. While he was away, Troy was the man of the house. He carried in water from the outdoor pump before he started off to school, and brought in a fresh supply of wood as soon as he came home.

All of Dawhoo Island that was not farmed was woodland. The woods stretched from road to road, and from creek to creek. Troy's house faced open fields, but its back was toward the woods; and winter or summer, Troy loved the woods. They were his to explore, even though they belonged to Mr. Greene. Mr. Greene was a wealthy man, who lived in a big white house. Troy didn't envy him his house—only his woods.

There were rabbits, and possums, and coons in the woods. There were partridges and quail, and there were deer. Troy knew the trails and hiding places of all the woodland creatures except for the deer, who kept well hidden. The deer would not come near Troy's house in the daytime, but several times Troy had found their hoofprints near the pump when he had gone out early in the morning. He was always hoping to discover the hoofprints of a fawn.

Once, in the fall, Troy had glimpsed a shy, spotted fawn. It was nibbling leaves in a

KING OF THE DEER

By ELEANOR FRANCES LATTIMORE

**How Troy, a boy on Dawhoo Island,
befriended the King of the Deer—**

sunny clearing with its mother. Troy's feet made no sound on the soft grass, but the doe had sent a warning to her child—and before Troy could come close, both deer had leapt away with their short tails in the air. Troy never forgot the fawn or its mother. He wished they knew that he was their friend.

Troy's mother understood how he felt about wild animals. She knew—especially in the winter—that he was their friend. Right now there was a tiny rabbit nestled in a box by the stove. Troy had found it shivering in the wintry woods, and had carried it home in his mitten hands. He had fed the rabbit milk with a medicine dropper, and lined the box with a piece of soft flannel.

There were other winter visitors that Troy was taking care of. One was a thrasher with an injured wing. It had not been able to fly south with the other birds, so now its "guest room" was a corner of Troy's own bedroom. It was a livelier pet than the solemn turtle which Troy had found frozen almost solid in the back yard.

"Which is your favorite pet, Troy?" asked



He aimed the other way, hoping to fool the hunters and dogs.

his mother.

"I like them all," was Troy's reply.

"Well, what is your favorite kind of animal?" asked his mother.

Troy didn't have to stop and think. "Deer," he said.

"They are beautiful," said Mother.

"They are brave, too," said Troy. "Hunters get after them every year, but they can't scare them away."

One morning when the pump had frozen, and icicles hung from the edge of the roof, Troy looked through the window and saw two deer in the back yard. They were a big and a little one, a fawn and its mother. Troy was sure they were the same ones he had seen before. They were eating the crumbs that Troy had thrown out for the brown field-mice. "Don't make a sound," Troy said to Mother. "Just come and look."

"Poor things, they are hungry," whispered Mother as she looked out of the window. All of the green things in the woods that the deer were used to eating must be withered and dry by now, or else turned to ice. "I am going

to give them something more to eat," said Troy. But when he had taken some food outdoors, both deer dashed away.

After that time, Troy put out food for the deer every night: slices of bread, carrot tops, and handfuls of salt. He had read somewhere that deer liked salt—and these deer certainly liked it! The doe and her fawn came back for more; and one cold morning Troy saw a buck draw near. What a beauty he was! He looked very proud with his big, branching antlers, and Troy said to himself, "That's the King of all the deer."

Troy longed to make friends with the deer. But he wasn't able to. All he could do was to offer them food. "What are you doing?" his father asked, when he heard of the deer's visits. "You shouldn't tempt them to come near, Troy. Deer eat crops, and we don't want them ruining our fields in the spring."

Spring was far off, though. It was not yet Christmas, and the weather stayed cold.

At Christmastime Troy's Uncle Ben came for a visit, bringing a sack of gifts, just like Santa Claus. There were gifts for Mother,

gifts for Father, and lots of things for Troy. "I had an air rifle when I was your age," Uncle Ben told Troy; and he added, "your mother wouldn't let me bring you one."

"I don't like shooting," said Troy quickly.

Uncle Ben nodded. "Some people do, and some people don't," he said. "But I'm going to make you a sling-shot, Troy, so that you can practice your aim. In my opinion, every boy ought to know how to aim."

"You can aim at tin cans, if you want to," said Troy's father.

A sling-shot was fun, Troy discovered. Uncle Ben made him one out of a forked stick and a leather strap. The "ammunition" was pebbles, the targets tin cans. Troy would set up an empty can on a stump at the edge of the field, and aim at it one pebble after another. He felt a stir of triumph when the can flew off the stump! "You will be a good marksman in no time," Uncle Ben told him.

Troy smiled. He thought that his sling-shot might be useful sometime, even though it was only a plaything.

Uncle Ben went home again. The days grew a little warmer, and the deer didn't come near the house any more. "Perhaps

they are finding enough to eat in the woods," Troy said to Mother.

"Perhaps they are hiding from the hunters," Mother replied. She had heard that Mr. Greene had guests, and she knew they were out hunting, because dogs were barking in the depths of the woods. Mr. Greene kept a kennel of hunting dogs, and they were turned loose whenever he and his friends went hunting.

"Be careful, if you go near the woods," Mother warned Troy.

Troy didn't want to go in the woods when Mr. Greene had guests, and when those guests were hunters. But he thought of the buck—the King of the deer—and he thought of the doe and her fawn; and he said to himself, "I want to protect them." He didn't know, of course, how he could manage to do that. All he had was a sling-shot, which wasn't much more than a toy.

When Troy went into the woods he stepped very carefully, looking to right and left. His ears were quick to catch the rustle of disappearing rabbits. His eyes were quick to see the hand-like prints of a coon. But he saw no deer. He heard no deer. The hunters and their dogs had cornered the deer in a

Illustrated by Fred Collins



neck of the woods between two creeks. As Troy followed the woodland path he heard the dogs barking. Shivers ran down his spine, but he held his sling-shot firmly.

The path Troy took ended abruptly on the bank of a creek, which was nearly as wide as a river. There was no sound of shooting, and the dogs had hushed their barks. The air was tense with stillness. "They have gone away," was Troy's first thought. Then he saw something: the head and antlers of a deer were rising out of the water. It was a buck—his buck, thought Troy—the King of the deer, who was swimming the creek. "He is losing his trail," was Troy's next thought. Oh, how smart deer were! The hunters and their dogs had been after the buck all day, but he had kept outwitting them.

The buck swam against the current. He swam bravely and well. Troy watched him from the bank with a thrill of pride. "Go it, go it, King," he whispered under his breath. The buck turned his head once in Troy's direction; then onward he swam to a point of land a few yards farther down the creek.

Troy watched as the buck climbed out of the creek and dashed into the bushes without waiting to shake the water from his back. Just

as he disappeared, four hunters came out of the woods. The dogs were with them. Forward and backward ran the dogs. They sniffed anxiously, with their noses to the ground.

One of the men spoke to Troy. It was Mr. Greene. "Have you seen a buck deer come this way?" he asked.

Troy did not answer. Instead, he put a pebble in his sling-shot and aimed at a clump of marsh grass on the other side of the creek. He hoped Mr. Greene would think he was aiming at the buck, and he hoped that he would be able to fool the dogs, too.

The pebble landed where no deer was, stirring the clump of grass, while all eyes gazed across the creek. Nothing happened. Mr. Greene turned toward Troy, and smiled. "That was a good try, with a sling-shot—but he got away," he said.

The woods belonged to Mr. Greene, as Troy well knew. But Troy had been able to help the King of the deer escape. King got away that day. He lived through the hunting season. For later, in the spring, Troy saw him again. He came to the back door of Troy's house in broad daylight, and Troy felt sure he had come to say "Thank you" to him.

"Go it, go it, King," Troy whispered under his breath.



LIGHTENING LIVES FOR LEPERS



When you have to stay in bed, the nicest gift of all is the one into which you can load your dreams and drive away to adventure.



Wonder is natural when the gift comes from a place so far away that it seems to have come straight out of a bedtime story.



Wherever gift boxes go, children share the joy of happy surprise.

IN FAR-AWAY NIGERIA (can you find it on your map of Africa?), gift boxes packed by American Junior Red Cross members recently brought joy to boys and girls who are sick with leprosy. The place where these boys and girls are being cared for is the Zaria Provincial Leprosarium in the northern part of Nigeria. The gift boxes were given to the boys and girls by the Northern Regional division of the Nigerian branch of the British Red Cross. As you can see by the pictures, the gift boxes brought all the cheer that the American boys and girls who sent them hoped they would.

In 1960, Nigeria, which now has 32 million people, will receive its independence.



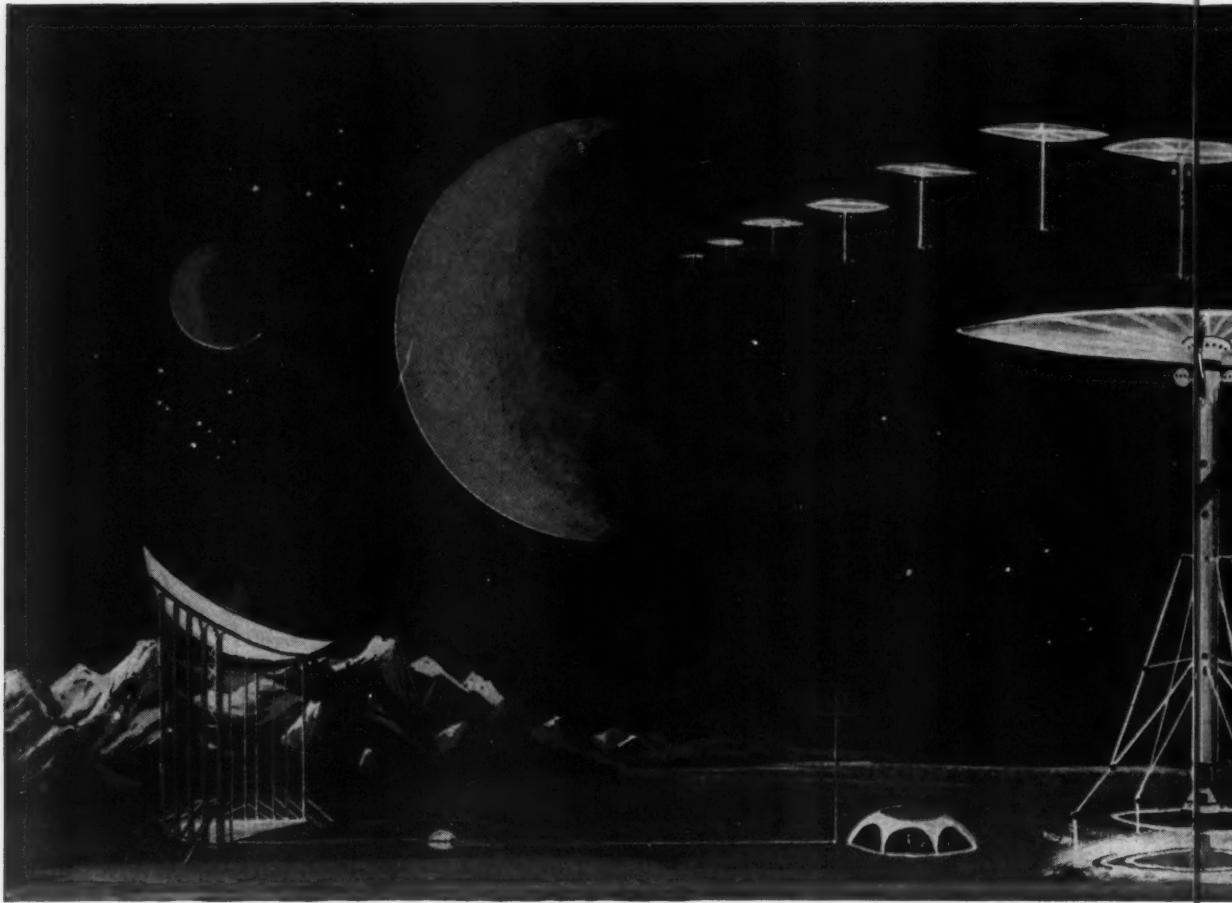
This Nigerian girl holds up two of her gift box gifts for the world to see and smiles her "Thank you."



When you don't feel well and joy always seems to be somewhere else, a gift reminds that there's some for you, too.



Every young craftsman must have a ruler to help his hands do their work well.



Worlds in Space

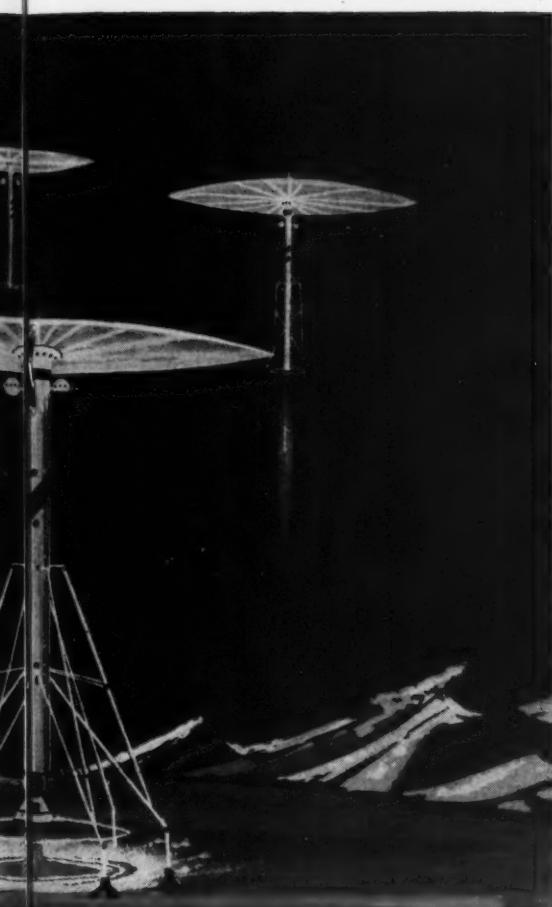
By ISAAC ASIMOV

IN THE COMING AGE of space travel, the names of planets and other heavenly bodies will come into the news. Some of them may not be those you expect. All of us have heard of Mars and Venus. Most of us know the other planets and the larger satellites as well. However, it is quite possible that it will be several of the small and unfamiliar worlds that will make the future headlines, and serve as the targets for mankind's spaceships.

For instance, Mars is certainly going to be the first of the planets we will try to reach after we've made a few trips to the moon and back. Yet landing on Mars will mean that we

must also land enough fuel to be able to take off again. In the early days of space-flight, that may be difficult. Even the low Martian gravity (only 2/5ths that of Earth's gravity) may be too much to handle just at first. But, then, do we actually need to land on Mars?

Mars has two moons that are very small and quite close to its surface. The nearer of these moons (or satellites; the two words are synonymous) is Phobos, which is only 10 miles in diameter. The further one, Deimos, is 5 miles in diameter. Neither would have any gravitational pull to speak of so that a spaceship, taking off again, would not have



Illustrated by John Woolhiser

to spend any fuel in overcoming gravity.

Furthermore, Phobos is only 3,600 miles above the surface of Mars, and Deimos only 12,500 miles, so that an excellent view of the planet would be presented to our telescopes and other instruments. What more could we ask? It may well be that in the world news of the future, the name "Phobos" would be more familiar than the name "Mars."

The giant planets (Jupiter, Saturn, Uranus, and Neptune) may never be visited by man. Their gravities are too great; their atmospheres too thick and alien. Each one, however, has moons that are less dangerous

Spaceships go in to planet Mars from satellite Phobos.

than the planet itself. From these moons, the planets may some day be studied at close quarters.

Jupiter has four large satellites, each the size of our own Moon, or larger. Their names are Io, Europa, Ganymede, and Callisto, and their distances from Jupiter run from 250,000 to 1,200,000 miles.

Yet these satellites may not be the headline-makers of the future.

Farther from Jupiter than these satellites are seven much smaller bodies, ranging in diameter from 10 to 70 miles. Three are about 7,000,000 miles distant from Jupiter; the other four about 14,000,000. None of these are as yet officially named.

The greater distance of these tiny moons may be an advantage. Jupiter's tremendous gravity (2½ times that of Earth) may make it dangerous to approach, since it would take a great deal of fuel to pull away again. Seven million miles may be just as close as we want to get. After all, even from that distance, Jupiter would still look larger than our full Moon does to us.

Jupiter has another satellite, often called Barnard's satellite after its discoverer. It is about 100 miles in diameter and it is the moon closest to Jupiter. Barnard's satellite is only 70,000 miles above Jupiter's surface and to a man standing on that little world, Jupiter's globe would stretch one-sixth of the way across the sky and seem 3,600 times as large as our Moon does to us.

Perhaps Barnard's satellite is too close to Jupiter to be approached safely, but if that could only be managed, a base on that world could turn out to be one of the real headline-making glamor spots of the Solar system.

Saturn, too, has a series of satellites. Titan is the largest, being bigger than our Moon. However, there are eight smaller satellites,

Worlds in Space

Continued

with diameters ranging from 200 to 1,000 miles, some of which may eventually end up more famous.

For instance, the satellite nearest to Saturn, named Mimas, is only 80,000 miles above the surface of Saturn. It would give us a splendid view of that planet except for one thing. One could not get a good view of Saturn's rings from Mimas.

Although only 25,000 miles beyond the outer edge of the famous rings, the orbit of Mimas is so situated that a person standing on its surface would always see the rings edge-on. The rings are so thin that, seen edge-on, they would be just about invisible except for the shadow they might cast on Saturn's surface.

It is the outermost satellite of Saturn, Phoebe, that is more suitable in this respect. It is the only one of Saturn's moons that has a tilted orbit so that the rings could be seen at times from above and at times from below.

Although Phoebe is 8,000,000 miles from Saturn, the rings, even from that distance would stretch twice the apparent width of our full Moon, with Saturn, in the center, somewhat smaller than our Moon. It would be one of the truly beautiful sights of the Solar system.

Uranus has five satellites. Four have been known for a century or more but the closest and smallest satellite was not discovered until 1948. It is named Miranda. It is only about 80 miles in diameter and is 60,000 miles from the surface of Uranus, giving us a very nice view if we could reach it.

Neptune's main satellite, Triton, is larger than our Moon. In 1950, however, a second satellite of Neptune, 3,500,000 miles from Neptune and about 130 miles in diameter, was discovered. It is called Nereid. Despite

its distance, Nereid might make a more convenient base for observations of Neptune than would the large Triton with its considerable gravity. In addition, once every 600 years or so, Pluto (the farthest planet) would pass within half a billion miles, and a start from Nereid might give us our best chance of reaching that distant world.

Reaching the outer planets, or their satellites, may prove quite a chore, however. The inner planets, you see, are fairly close to-

WORDS FROM SPACE

PLANET—An astronomical body which gives off no light of its own, and which moves in a fixed path about a star. A planet shines by the reflected light of the star it circles. The Earth is a planet since it circles the Sun, which is a star. Mars and Venus are examples of other planets.

SATELLITE—An astronomical body which moves in a fixed path about a planet. The Moon is a satellite because it moves about the Earth, which is a planet. It accompanies the Earth in the latter's pathway about the Sun, of course. A satellite is smaller than the planet it circles, but it may be larger than some other planet. One of the satellites of Jupiter is larger than the planet Mercury, for instance. Satellites are often called "Moons."

GRAVITY—The force of attraction between any two bodies in the Universe. The larger the bodies, the stronger the force; and the farther apart the bodies, the weaker the force. It is gravity that holds the Earth and keeps it circling the Sun.

ORBIT—The path taken by any body circling a larger body. The Earth travels in an orbit about the Sun; the Moon travels in an orbit about the Earth.

RADIATION—Any form of energy which moves outward from a body in straight lines in all directions. The most familiar forms of "radiant energy" are heat and light which are given off by the Sun or by an electric bulb. There are other forms of radiation we can't sense so easily, as radio waves or x-rays.

ASTEROIDS—Small bodies that circle the Sun. Most are located between the orbits of Mars and Jupiter. They are so called because they look like stars in the telescope (and "aster" is the Latin word for "star"). They are more correctly called "planetoids" or "minor planets."

gether. Venus can approach to within 25,000,000 miles of Earth, Mars to within 35,000,000, and Mercury to within 50,000,000. To cover these distances would take only weeks with the rocket power we may be able to build up in the next 20 or 30 years.

Jupiter, however, is 350,000,000 miles beyond Mars; Saturn is 400,000,000 miles beyond Jupiter, while distances to the still farther planets must be measured in the billions of miles. To cover these great gaps would take many months, and large ships with adequate supplies would have to be built.

Fortunately, there is a starting point farther out than Mars. Between the orbits of Mars and Jupiter are thousands of small worlds called planetoids. The largest of these is Ceres, which is 480 miles in diameter. Three others, Pallas, Vesta, and Juno, have diameters in the 200 to 300 mile range.

For many years, these little worlds may well make the headlines as mankind's outposts in the Solar system; and as bases at which supplies were being assembled and great ships being built to explore the vast emptiness beyond.

But there are dangers inside the Earth's orbit, too. Approaching Venus and Mercury means approaching the Sun. There will be increasing radiation as a result and the Sun's gravity to fight on the way back. Here, too, planetoids may help out; a group of unusual headline-making asteroids called the "Earth-grazers," because they approach so close to the Earth.

The longest-known of these is Eros which can approach within 13,800,000 miles of Earth, but which stays between Earth's orbit and that of Mars. In the last quarter-century a series of others have been discovered. Amor approaches within 10,000,000 miles of Earth, Apollo within 6,500,000 miles, and Adonis within 1,300,000. The record, however, is held by Hermes which, in 1937, approached within 485,000 miles of Earth and can at

times get as close as 220,000 miles, which would put it even closer than the Moon. Of course, all these are tiny worlds. Hermes is only half a mile across.

In circling the Sun, these Earth-grazers move inward in the direction of Venus and Mercury. Instruments or manned bases set up on some of these during a close approach to Earth might bring back records of the inner planets and the Sun that could be most valuable.

The most unusual planetoid of all is one discovered in 1948. It doesn't approach closer than 4,000,000 miles to Earth, but the important thing is that at one end of its orbit it approaches to within 19,000,000 miles of the Sun (at which time it must grow red-hot). This is 9,000,000 miles closer than Mercury (the planet closest to the Sun) ever gets. Nothing but an occasional comet ever gets closer to the Sun. The planetoid is named Icarus, after the youngster in the Greek myth who wore wings held together with wax but flew too close to the Sun so that the wax melted and he fell to his death.

One can imagine a day, when instruments mounted on Icarus will wing off to skim the neighborhood of the Sun and bring back information we could scarcely learn in other ways. News of the progress of Icarus and the information beamed back by radio would make headlines in every paper in the world, and Icarus, a world known to not one in a million now might suddenly become as familiar a word, all of a sudden, as Sputnik.

About the Author

Isaac Asimov

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Father of a 6½-year-old boy and a 3-year-old girl. His book "Building Blocks of the Universe" was given the Thomas Alva Edison Foundation Award on Best Science Book for youth publication in 1957.

HERE AND THERE

**Junior Red Cross Gift Box Play, by fourth graders,
Lincoln School, Springfield, Massachusetts.**

SCENE I—A room in Lincoln School. Several children are filling a Junior Red Cross gift box.

SUE—Karen, please hand me that doll.

MARY—Bob, may I have the pencils, now, please?

FRED—Miss Brown, do you think it would be all right for me to put in a bar of soap?

MISS BROWN—Why, yes, a small bar of soap would be fine.

BILL—This is going to be a wonderful box.

KAREN—I think it is very kind of the children to bring things for this gift box.

JIM—Some child overseas is going to be happy when he receives this nice box.

SUE—Let's check over what we have put in so far— toothpaste, toothbrush, pencils, paper, soap, doll—

BILL—Wait! We forgot the eraser. Here is one.

MISS BROWN—We must get all our boxes to the Red Cross Chapter House so that they can be ready for the next shipload to some foreign country.

JOAN—I wonder where the child who is going to get this box lives.

BILL—I know the boxes are sent to many countries.

MARY—What do you suppose he will think when he opens the box?

LEE—I don't know, but I'm sure he will like everything. I'd like to get it myself.

SUE—My teacher told us that last year Junior Red Cross gift boxes went to over 40 countries.

FRED—You know, this is a good idea, sending gift boxes. It shows children far away that the children of America like them.



ILLUSTRATED BY
DAGMAR WILSON

BILL—Don't forget that Junior Red Cross members give service in our own country too.

JOAN—That's right, Bill. The Junior Red Cross helped to buy furniture for a playroom at the Monson Children's Hospital last year.

JIM—I heard that the Junior Red Cross bought a record player and records for the temporary foster home for children in Springfield.

MARY—Remember that story about the children of Korea whose schools were destroyed in the war? The children had to sit on mats right outdoors. And they did not have warm clothing or books. The American Red Cross Children's Fund, which is supported by the Junior Red Cross, bought warm clothes for them, and duplicating machines so their teachers could print books for them.

MISS BROWN—All of the children in the Springfield area help to do Junior Red Cross work by sending holiday favors, tray covers, booklets, puzzles, stuffed toys, and many other things to the hospitals near them. Springfield Hospital is the hospital near us, so we make gifts for that hospital.

FRED—Last year at Christmas our class made a folder of pictures illustrating "The Night Before Christmas," and sent it to Springfield Hospital.

SUE—That's right. I remember that. If I had been a patient, I would have been happy to receive it.

FRANCIS—Well, I guess our box is just about finished. There is not room for another thing. We have put in the paper with all of our names signed. I hope the girl who gets our box will write to us.

SCENE II—A country overseas; a group of children talking together outdoors.

JEAN—Oh, I am so cold! I wonder when it will warm up.

MARIE—I wish I had a new comb. This one is all broken.

LORRAINE—I know, but everything is so expensive. Mother will try to get you a new one soon.

JEAN—Just look at my dress! Mother has no more

white thread. If I had some white thread and a needle, I'd mend this tear.

MARIE—I have an idea. Let's play a game. Then we won't be thinking about the things we need.

JOANNE—What shall we play? I'm too tired to play tag any more today.

LORRAINE—I know! Let's play jacks.

JOANNE—Jacks! But we have no jacks.

LORRAINE—That is true. But we can play jacks just the same. We'll use stones for jacks.

JEAN—But we need a ball.

LORRAINE—Use a stone! I'll explain. First you scatter the stones. Then you toss the leader stone into the air. As quickly as you can, pick up a jack stone before you catch the leader stone. I'll show you. (Demonstrates) See?

(Other children laugh and clap their hands.)

MARIE—That's fun! Let me try, Lorraine.

(Enter Joe.)

JOE—Girls, come quickly. Something wonderful is happening! Mother sent me to tell you that all the children in our village are wanted at the school right away. A messenger told Mother there is to be a fine surprise. Come quickly!

JOANNE—Surprise? School? At this hour?

JEAN—Oh, I wonder what it can be?

MARIE—I'm so excited! Let's hurry.

(They hurry off.)

SCENE III—At the school.

RED CROSS WORKER—Good afternoon, boys and girls. As you know, I work for the American Red Cross. You have some friends who live far away from here, in the United States of America. These

Scene from this original Gift Box play, put on at Lincoln School, Springfield, Mass. Contents of a gift box are being admired by the actors, who took the parts of children in other lands.



friends are boys and girls just like you. They wanted to do something to show that they are your friends, so they decided to send some boxes filled with gifts.

CHILDREN—Gifts? For us? What do you suppose there is in the boxes?

LORRAINE—How did they get here?

JACK—Did the children bring them?

2nd RED CROSS WORKER—No, the children could not come so far, so they asked the American Red Cross to send the boxes for them. A big ship brought the boxes across the ocean and they were unloaded just this morning. Now I am ready to do my part in delivering the children's gifts. Each one of these boxes was filled by some class in America. This one was filled by a class in Lincoln School, Springfield, Massachusetts. It says it is for a girl. Which girl would like to have this box for her own? (*Girls raise their hands.*) You may have it. There will be a box for every child.

JOE—Oh-h! For me?

2nd RED CROSS WORKER—Yes, indeed.

MARIE—May we see what is in Joanne's box, please? I can't wait to know.

1st RED CROSS WORKER—Are the other children willing?

CHILDREN—Yes, yes!

JOANNE—(*Opening the cover*) Oh, this is wonderful! I've never had a present from America, or from any place outside of our village. I'm so excited I can hardly open the box. Oh, a little doll! Isn't she pretty! And some cloth to make her a dress. I'll make you a very pretty dress, dolly.

JACK—What else? A toothbrush!

JEAN—And toothpaste.

MARIE—A new comb!

MARC—Three pencils.

TONY—Some paper pads to write on.

LORRAINE—An eraser.

JOANNE—A real ball and some real jacks! Now we can really play jacks.

JANE—Isn't this wonderful?

JOANNE—A sewing case with needles and *two* spools of thread.

LORRAINE—Some pretty ribbons for her hair.

MARTHA—And something else! A card of pretty buttons.

JOANNE—Oh, what a marvelous present! Weren't those children at Lincoln School kind to send me this present?

BILL—It was a nice thing to do, but why did those children do it?

1st RED CROSS WORKER—Because they belong to the Junior Red Cross.

FRED—What does that mean?

2nd RED CROSS WORKER—It means that these children believe in service and kindness to people in their own land and in other lands, too.

TONY—That is very good. And they are very good children.

MARC—Do Junior Red Cross children do anything else?

2nd RED CROSS WORKER—Oh yes, they make albums about themselves and their school and send them to foreign countries so the children will know more about how American children live.

TONY—How do the children show kindness in their own land?

2nd RED CROSS WORKER—They help at home and at school. They make favors, toys, and many other things for patients in hospitals. They also give money to buy things like records, record players, books, and furniture for homes where children are taken care of.

FRED—But where do the children get all the money they need for that good work?

1st RED CROSS WORKER—Once a year, in November, all of the children give money to help buy materials for Junior Red Cross work.

FRED—That is a very interesting story about the children of America.

2nd RED CROSS WORKER—Now shall we pass out the rest of the boxes? (*Passes out boxes to boy-girl-etc.*)

FRED—May I wait until I get home to open mine, so my little brother can see the gifts, too?

2nd RED CROSS WORKER—Certainly you may, if you want to.

JACK—I think I'll wait, too.

OTHERS—I'm going to wait, too.

LORRAINE—Thank you very, very much for this lovely surprise. And thank all the kind children who sent these boxes.

CHILDREN—Good-by! Good-by!

SERVICE our MOTTO

JUNIORS EVERYWHERE are busy doing the things that bring cheer to lonely people. The pictures on this page come from Germany, Iowa, Newfoundland, and Massachusetts and are typical of JRCers' far-flung activities. Almost anywhere you go among Americans you will find Junior Red Cross members taking the time to remember others. While doing this, they learn many interesting facts about their communities, nation, and world, as well as having a lot of fun.



ARGENTIA, NEWFOUNDLAND. First graders at the Arthur Bristol ES at this Far North naval base have fun packing gift boxes right from the beginning.

DAVENPORT, IOWA. JRCers all, the second grade Rhythm Band at Roosevelt School has struck up many times for cheer at nursing homes and on TV.



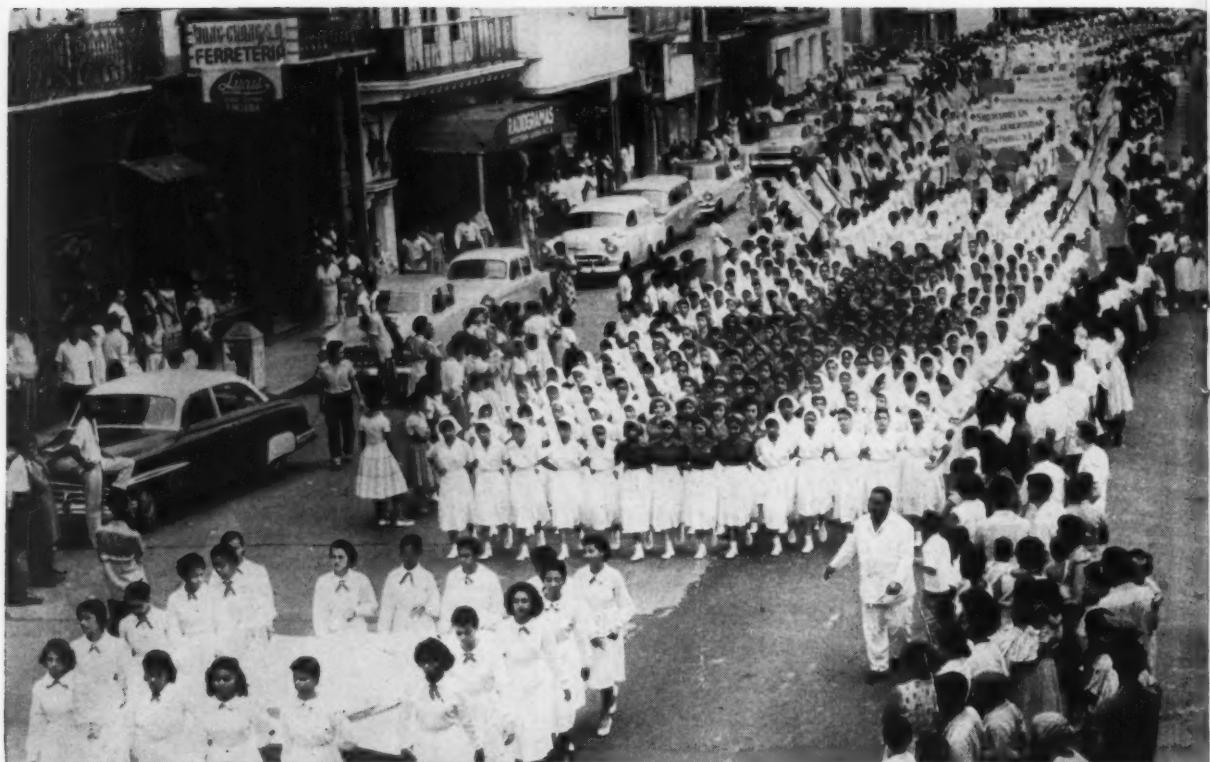
BITBURG, GERMANY. AJRCers here prepare plants to cheer the hours for men at the 36th TAC Hospital.



BOSTON, MASSACHUSETTS. Sixth graders at Curtis Guild School make dresses for children in need.



Davenport Daily Times



PANAMA. Shown here are the spruce ranks of Red Cross workers in Panama City. Junior Red Cross members also march in this colorful parade, held every year to show off the Red Cross dramatically.

World's Children



JUNIOR RED CROSS BINDS THE CHILDREN OF THE WORLD IN TIES OF FRIENDSHIP

Did you ever stop to think that boys and girls in other lands are very much like you? They play and go to school, get sick sometimes, and wonder what they'll be when they grow up, just like you do. And they like to be remembered. A JRC Gift Box is a very special, personal way to say "Hello," and you make a new friend of the boy or girl to whom *your* Gift Box is given.

NEW ZEALAND. JR Cer Anne Kenshaw, Wellington, brings a surprise to Karen Wicks at hospital.



NORWAY. Little Terje doesn't quite know what to make of the strangers. But he's not going to let the gift box they brought get away.



THAILAND. A group of girls in Bangkok, the capital of this story-book country in southern Asia, look over their JRC gift boxes.



JAPAN. When you get a present like a gift box, you settle right down for a look at the good things in it.

Who Went There?

Written and Illustrated by SHIRLEY A. BRIGGS

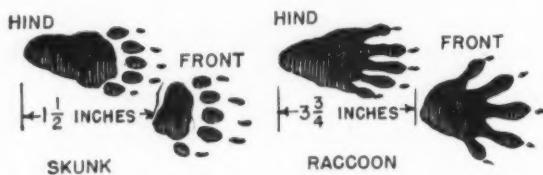
Winter is the time for outdoor detective stories. If you like to work puzzles or read mysteries, you should do this kind of detecting very well. The rules of the game are simple, and anyone who knows how to observe things carefully and who can put clues together already has the main idea. The best thing about this winter sport is the anything-can-happen feeling that you have whenever you set out to learn what has been going on in your woods or fields or park.

The characters in the stories we try to put together are the birds and animals and insects that are living with us through the winter months. If you are lucky enough to live where there is snow for much of the winter, it will be easier to follow your wild neighbors' doings. Everyone has noticed tracks and other marks in the snow, and you probably can tell the tracks of a rabbit from those of a dog or cat. When there is no snow, look for patches of mud or soft earth along streams. Many tracks can often be found here, and especially interesting events may have taken place. Sand may hold tracks well, too.

Have you ever wondered why you see so few animals in the winter countryside, although many tracks may be found? Most

mammals and some birds are most active at night, and so the best way for us to learn about their lives is from the tracks and other traces they leave. Even if we stayed out all night, our eyes and ears are not sharp enough to notice all of the exciting things going on around us in the dark.

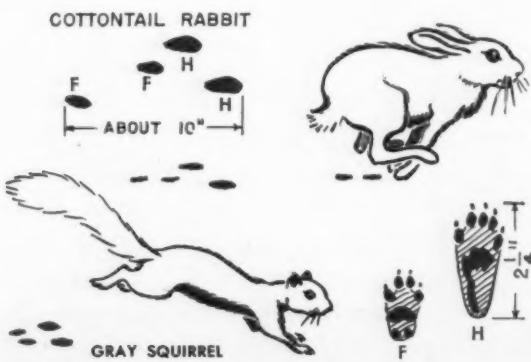
Mice and squirrels, muskrats and beavers slip out of their holes and houses to look for food, chewing roots or twigs or seeds. Owls and weasels are out looking for a careless mouse for supper, and skunks may be poking about for hidden bugs. A stream bank is one of the best places to find raccoons. Do you



know the raccoon track? It looks very much like the print of a tiny human hand with spread fingers. The skunk's foot leaves a mark rather like a baby's footprint.

Animals that bound along the ground, like rabbits, mice, or squirrels, leave the prints of their hind feet ahead of their front footprints. You can see how this happens from the picture. Animals that live on the ground all the time, like rabbits and mice, usually put one front foot a little ahead of the other, but tree-dwellers like squirrels are apt to put their front feet down side by side.

Some animals walk on their toes. These are usually the ones who can run fast and who need speed to catch their food or to escape from danger. Cats and dogs do this, both the tame ones and their wild cousins, the foxes,



coyotes, wolves, or bobcats. Cats walk with their claws pulled back into their paws, but dogs do not, and so dog tracks show the claw marks. This shows more clearly in mud than it does in sand or snow, of course. Cats run very neatly, leaving a single file of tracks, the hind feet coming down into the prints left by the front feet. Foxes do this too, but their tracks are a different shape.

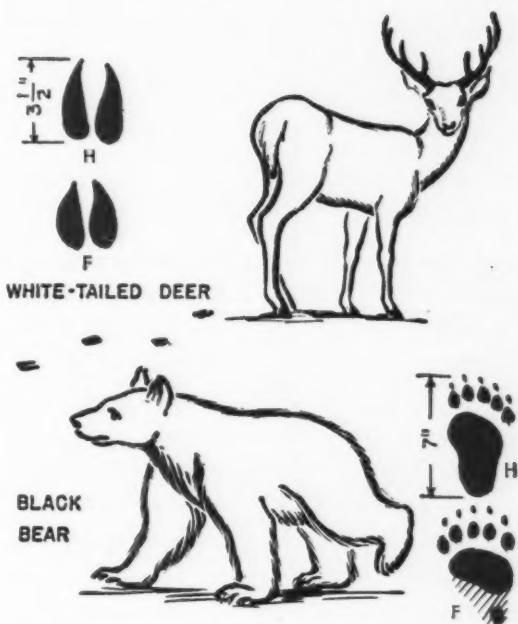
Deer walk on their toes, too, and so do their relatives the elk, moose, mountain sheep, and bison. You can easily tell the tracks of hoofed animals from any others, and size is very helpful in telling the kinds apart. Several domestic animals have such similar feet that you will want to be sure whether any pigs or sheep are around before you tell everyone that you have found deer tracks!

Animals that can take their time as they search for food may walk touching both heels and toes to the ground, at least with their hind feet. Bears and raccoons do this, and so do skunks and porcupines.

Some animals with long tails may leave a tail mark behind them. In a muskrat trail, the tail marks curve between the footprints. Deer mice have such long tails that they may leave marks even when the mouse is taking long leaps. And the turtle track makes a different effect altogether—you may see the wide mark left by his shell when he stops to rest, with dragging footprints on each side, and the tail mark running along the middle. What sort of a track do you suppose a large beetle makes?

The track patterns are very different when an animal changes from walking to running or bounding, and it is a big part of the game to learn these basic patterns.

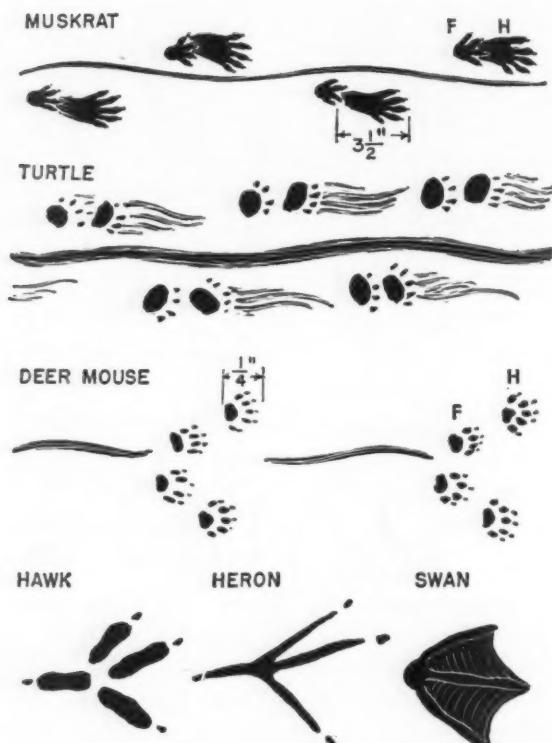
You may find it a bit harder to tell just what kind of bird has made the tracks you find. The size of the track and the place where you find it will help—you don't expect a heron far from water, or a grouse in a marsh. And have you ever noticed which birds hop along



and which ones walk? As a rule, tree and bush birds are apt to hop, with both feet together, when they are on the ground, but birds that spend more time on the ground, like the starling or cowbird, tend to walk.

Some tracks are sure to puzzle you. Don't forget that frogs and toads make tracks, and so do insects, snakes, lizards, and any moving creature. When several animals have crossed one patch of mud, you can find a marvelously complicated pattern to puzzle out. If you want more help in learning the tricks of the game, see if your library has a copy of *A Field Guide to Animal Tracks*, by Olaus Murie, or some of the books by Ernest Thompson Seton. The librarian may know of many other books about animals in your part of the country.

Tracks are not the only way to tell which animals have been about. Beaver leave the gnawed stumps of the trees they cut, and crayfish build little mud chimneys above their burrows. The nests of squirrels and birds show up much better with the leaves off the trees. Squirrels may still be using their nests for winter homes, but birds usually do not. If you want to bring the birds' nests



home to identify them, this is the time to do it, when the owners are through with them.

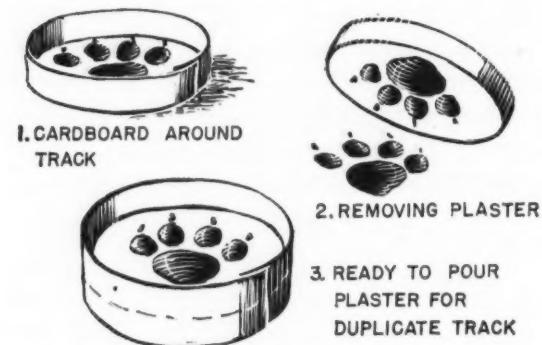
Be sure the nest has not been taken over by a deer mouse. These little fellows often put a roof on an abandoned nest, and make a snug winter home for themselves. Before you take the nest down, notice how high it was, and in what kind of tree or bush. This may be important in finding out what kind of bird built it. You may find that birds were nesting in your own yard that you knew nothing about until you found the empty nest in the winter.

You can bring back the tracks you find, too, if they are made in firm ground or snow. Plaster of Paris can be used. Put a ring of cardboard into the ground around the track, and pour the mixture of plaster and water into it until you have enough for a thick, strong plaque. After it has cooled and hardened, remove the cardboard, lift the plaster, and carry it home carefully. You now have a reversed image of the track.

If you want an exact duplicate, grease your

plaster mold, put another ring of cardboard around it, and pour in more plaster. The grease should keep the two from sticking together, and you can make several track impressions from your mold. It is a good idea to practice at home first with the plaster, so that you know just how to mix it.

Suppose you now have a good idea which animals made the tracks you see. Is that all there is to the game? Not at all. The most



interesting part comes when you can figure out, from tracks and bits of fur or feathers, where a meadow mouse was surprised by a weasel, and got to his hole just in time. Here an owl may have swooped down to catch the weasel, who was still so hungry after missing the mouse that he wasn't paying enough attention to other things.

With a little practice you should be able to tell a great deal about the animal whose tracks you have found. Did he run or bound or just saunter along? Was he nervous, stopping to look around, jumping from side to side? Did he meet a friend? What did he find to eat? Or if some other animal tried to molest him, where did he try to hide? Was he all businesslike, or did he seem to do some things just for fun? Sometimes you can tell how far an animal goes from his home during a night's wanderings. A mouse may only venture a few yards, while an owl or a fox will patrol a whole woods.

What do you suppose someone could tell about you if he followed your tracks all day?

WHEN IT'S COLD OUTSIDE

JRC boys and girls find many services to do for their chapter and like to write verses too.

The Snow Is Falling

In the Winter when it is cold
Oh! how the snow does blow.
It's fun for us to run and play
On a very snowy winter day.

It stops the traffic to and from
It sometimes even closes schools,
So I'll wait and play and ride my sleigh
On a very snowy winter day.

MONITA LAWSON
Brent School,
Washington, D. C.

Some Day

Some day I may go to the moon,
Not now, but maybe this afternoon;
Anyway, what will I see?
Will I see you or maybe Miss Lee?
I know I will see the moon,
the sky, planets, and stars!
And, maybe I'll even see Mars.

SUSAN CANNONE
P. S. 77, The Bronx, N. Y.

Transportation

If there were never transportation we just
couldn't get around.
There would never be an airplane,
Which is faster than a hound.
There would never be a streamline train,
That runs upon a track.
We would still be riding on a horse,
Carrying our sack.

NANCY FEINBERG
Pierce School
Brookline, Mass.



Tacoma, Washington, JRCers snowborne for service

Winter

Summer is gone like a dying ember,
Fall is past with its red-gold sheet,
Winter is here with a deep white blanket;
Streets are covered with snow and sleet.

The trees are uninviting
With their branches barren and cold;
The slopes are good for sledding
If anyone be so bold.

KIM LEVERTON
Horace Mann School
Washington, D. C.

Merry Season

Oh, winter is a merry season,
The snow comes tumbling down;
The trees are in their nightgowns
Dancing all around.

Winter is a lovely season,
The snow lies all around.
The dogs have left their footprints
In the snow on the ground.

JOAN DAVIDSON
Horace Mann School
Washington, D. C.





THERE'S A LITTLE WHEEL

Steadily

Negro Spiritual

There's a lit - tle wheel a - turn-ing in my heart. There's a
 Oh, I feel so ve - ry hap-py in my heart. Oh I

2:4

lit - tle wheel a - turn-ing in my heart.
 feel so ve - ry hap-py in my heart.

2:4

Chorus

In my heart — — —. In my heart — — —. There's a
 Oh, I

2:4

lit - tle wheel a - turn-ing in my heart.
 feel so ve - ry hap-py in my heart.

2:4

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 "Sing a Song with Charity Bailey"

Illustrated by Jo F. Irwin

